REMARKS

Reexamination and reconsideration of the claims, as amended, are respectfully requested.

Applicants' attorney is appreciative of the interview granted by the Examiner on July 8.

The claims now pending in this application have been rejected under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. The claims have been amended to meet the objection. In particular, the language "no later than during the same time" of claim 74 and similar language in claims 75, 78, and 80-83 has been amended; claims 78-83 now make more specific that the method is related to a machine; and claim 79 has been cancelled and replaced by claim 84. (Inexplicitly, claim 79 as it appears in the previous amendment differs substantially from claim 79 which appeared in the second preliminary amendment. Accordingly, claim 79 from the second preliminary amendment is carried forward in this amendment as claim 84 and has been amended to meet the §112 requirements.)

The Examiner has also objected to claims 71, 72 and 74-77 for failing to particularly point out and distinctly claim the structure which goes to make up the device. This objection is now being further considered in view of the Examiner's explanation and Applicants' attorney will make any necessary changes shortly.

I enclose herewith a copy of the Patent Office form PTO-1449 showing the prior art cited in the grandparent application.

During an interview with the Examiner, the drawing changes were discussed, and further investigations are being made here with regard to the "mix-up" in the drawings. In addition, the Examiner noted that the substitute specification, filed in the parent case, was not in its proper place in the file wrapper.

With regard to the rejection of the claims for failing to meet the non-obvious requirement of 35 U.S.C. §103 over the McDowell references in view of Freiman et al, Applicant's position is not solely that the McDowell references fails to teach or suggest early processing of a branch instruction so that it executes beginning at a time earlier than the last non-branch instruction of a block, but in addition, in accordance with the claims, that the execution of the branch instruction complete no later than the completion of the last non-branch instruction. In the McDowell references and in particular, in the McDowell article to which the Examiner specifically refers, there is a teaching which provides that the branch instruction, if it exists in a so-called PI (parallel instruction), will appear as the last instruction (MOP) within the PI. The PI represents generally a plurality of instructions being executed all of which start at the same time. There is no teaching in any of the cited references that the branch instruction will complete earlier than the other MOPs in the PI. In fact, there is every reason to believe that the branch instruction, which is executed not in a PE (processing element) but in a CP (control processor) can, and typically does terminate after the last instruction of the PI. This is necessary

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because neither McDowell nor Freiman et al disclose or recognize the advantage of trying to move the branch instruction to a position wherein it begins to execute earlier, so that its execution terminates no later, than the last instruction cycle allocated to a non-branch instruction.

Accordingly, there is no teaching in the McDowell references or Freiman et al that the branch instruction should begin execution in a "PI" earlier than the last "PI" used for the basic block; and further, there is no teaching or recognition that the branch instruction should complete execution at a time no later than the time at which the last non-branch instruction of the basic block terminates.
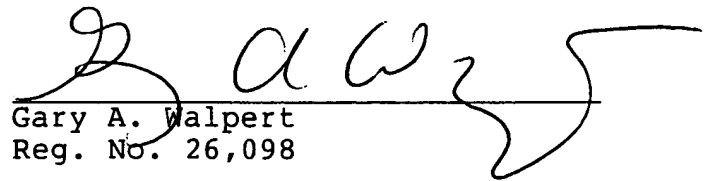
Further, as noted in our previous amendment, Freiman et al do not refer to the branch instructions, and do not recognize that the branch instructions can be processed in parallel with other instructions being processed. This is true even though the concept of trying to process two instructions was well known.

It is thus the unique nature of the branch instruction and the various kinds of branch instruction which might be available, conditional branches, absolute branches, etc., which make the branch instruction unique and different. Accordingly, neither McDowell nor Freiman et al teach or suggest the claimed invention. The parallel process aspect of McDowell adds no additional feature or advantage here.

For the reasons noted above, it is respectfully submitted that the application, as amended, should be passed to issue in due course.

Respectfully submitted,

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